

CAPTIONMAKER®

(Windows XP/Vista/Win 7)

MACCAPTION™

(Mac OS X)

Closed Captioning/Subtitling Software

(Includes patented [#6,895,166] software engine)

<http://www.cpcweb.com/common/PatentAcceptance.pdf>

All Flavors: Live, Web, WebPlus, Classic, DV, NLE, DTV-Lite, DTV & HD
Complete closed captioning and subtitling Preparation & encoding software

All Encoder Flavors: DV, Classic, NLE, DTV & HD Enterprise
Closed captioning and subtitling encoding software

Quick Start Guide

September, 2011

CaptionMaker and MacCaption software does the entire captioning and subtitling processes, from text entry, positioning and time coding to adding captions to DVD, Webcast, DV, QuickTime, MPEG-2 and SD/ HD videos residing on the hard drive without using a hardware closed caption encoder.



Computer Prompting & Captioning Co.

The Industry Leader Since 1985

1010 Rockville Pike, Suite 306
Rockville, MD 20852 USA

info@cpcweb.com
www.cpcweb.com

voice (301) 738-8487
fax (301) 738-8488

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FOR CPC CAPTIONING, SUBTITLING, AND OTHER SERVICES: Warranty and liability described in the CPC Caption/Subtitle Service Order Form customer filled out when placing their order.

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Read This First

This quick start will help you with the basics of CaptionMaker and MacCaption. It refers to a wealth of information which is available on our website: www.cpcweb.com and is updated frequently. Please save this link: www.cpcweb.com/download/quickstart.pdf for future updates of this document.

One Price - Both Platforms (Mac and Win)

Whether you work with Mac or Windows, we have a solution for you. When you purchase CaptionMaker or MacCaption, you will receive a USB key that will work with both Windows and Mac captioning software. If you decide to work on Windows, you can easily download and install the Windows software by clicking on our downloads page: www.cpcweb.com/download.

Do not Lose the Hardware Key

CPC USB Hardware Key

The CPC USB Hardware Key must be attached to your computer in order for the software to run.

For your own sake, make sure the USB Hardware Key does not get lost.

If you lose it, the software will not run, and you will have to buy the software again.

We do not want to make money that way. Please do not lose it!

P.S. We suggest you add the USB Key to your insurance policy.

Video Tutorials and Support

- Video Tutorials: www.cpcweb.com/tutorial
- Troubleshooting: www.cpcweb.com/support/troubleshooting.htm
- Forum: www.cpcweb.com/forums
- FAQ: www.cpcweb.com/faq
- Contact CPC Tech Support: www.cpcweb.com/support

Old Manuals

CPC does not provide the old paper manuals when you license the software. Even though these manuals (between 150 to 200 pages) had not been updated for a while, they have a lot of information like: detailed description on how to prepare a caption/subtitle file and old

workflows. They are available from the Help menu of CaptionMaker and MacCaption. Also available at: <http://www.cpcweb.com/TechSupport/CapMaker/CaptionMakerManual.pdf> and <http://www.cpcweb.com/download/MacCaption/MacCaptionTutorial.pdf>

Caption Style

It is very important that you follow the style guidelines for closed captioning published by DCMP: www.captioningkey.org. There is a brief description of it in the chapter: Caption Style Guidelines

System requirements

System Requirements: (MacCaption)

Mac OSX 10.5 (Leopard), 10.6 (Snow Leopard), or 10.7 (Lion)

Note: Not compatible with OSX 10.4 (Tiger) or older

Intel or PPC (G4/G5) Processor, QuickTime 7.6 or higher

1GB RAM, 20 GB free hard disk space, one free USB port

[Auto Time Stamp](#) requires 2GB RAM and Intel Core 2 Duo or Core i-series processor

System Requirement (CaptionMaker):

Intel Pentium or AMD Athlon or equivalent processor

1GB RAM (Windows XP), 2GB RAM (Windows Vista/7)

5GB free Hard Disk space

One free USB port

Windows XP SP3 (32-bit only), Vista SP1 (32/64-bit), Windows 7 (32/64-bit)

[Auto Time Stamp](#) requires 2GB RAM and [Java Version 6 \(JRE 1.6\) or higher](#)

Support Contract

Telephone and e-mail support is provided 9am – 7pm Eastern time, Monday – Friday, excluding federal holidays. To obtain support, please submit a request ticket available at www.cpcweb.com/support/.

Free five (5) hours of support is provided for six (6) months from date of purchase of CPC software. In addition, free software updates are provided for six (6) months from date of purchase of CPC software. Free two (2) hours of support is provided for two (2) months from the date of purchase of a CPC software upgrade. In addition, free software updates are provided for two (2) months from date of purchase of CPC software.

You can buy additional software support and software updates (which are bundled together) from the [Extended Software Support Agreement](#) available at www.cpcweb.com/support/support-costs.pdf, that picks up after the free support and free updates end.

Webinar Training

CPC conducts training sessions for both CaptionMaker and MacCaption on a regular basis. There are separate training sessions for beginning, intermediate and advanced users. For more information, check the page: www.cpcweb.com/training.

Online training

Online training on how to use the software most effectively is available. We use GoToMeeting as of 8/2011, which allows you to see our computer screen on your computer while listening to our master instructors and you can ask questions. No airplane tickets, no hotel bills, just the best possible training in the comfort of your own office! You are entitled to one free online training class (a \$50 value). Contact us at training@cpcweb.com to set up your free training class.

Updates and Upgrades

In the future, if you want to upgrade to a more powerful version of the software, you simply pay the difference in price between the software that you currently use, and the software to which you want to upgrade. In cases in which the upgrade path is not straightforward, CPC will be the final arbiter in deciding the upgrade price. See upgrade prices at <http://www.cpcweb.com/updates>.

Different Flavors of the Software

MacCaption

MacCaption comes in different flavors to meet your workflow. Please identify which software you have and see the capabilities of that software below. The flavors are arranged in a way that each flavor does everything the flavor of the software in the list above and more. Below is a very brief layout of all the different flavors of MacCaption.

CPC MacCaption: Feature Highlights							
	Live	Web Plus	Classic	DTV Lite	DV	DTV	HD Enterprise
Import:							
Plain Text files	✓	✓	✓	✓	✓	✓	✓
Industry standard caption files		✓	✓	✓	✓	✓	✓
Retrieve captions from existing video		✓	✓	✓	✓	✓	✓
Caption Preparation*:							
Transcribe & Time Stamp video		✓	✓	✓	✓	✓	✓
Author, Format & Edit captions	✓	✓	✓	✓	✓	✓	✓
CLI & Batch Processing					✓	✓	✓
Assemble Captions (conform to FCP .xml)							✓
Export Captions:							
Plain Text files	✓	✓	✓	✓	✓	✓	✓
DVD closed caption files (.scc)		✓	✓		✓	✓	✓
Caption Formatted files (.cap, .tds, etc.)		✓	✓		✓	✓	✓
DV (720x480) video (for DVCAM, miniDV, etc.)					✓	✓	✓
SD - Line 21 CC ("Black Movie") for 720x486						✓	✓
MPEG-2 (DTV) CEA-708/608/SCTE-20 captions						✓	✓
Matrox MXO2 - HD/SD-SDI and Analog				✓		✓	✓
AJA KONA & IO HD - HD/SD-SDI and Analog				✓		✓	✓
Blackmagic DeckLink - HD/SD-SDI and Analog				✓		✓	✓
Manzanita Mux HD MPEG-2 Transport Stream						✓	✓
Sony MXF (XDCAM), DVCPRO-HD .MOV (tapeless)							✓
Avid AAF for Media Composer 5 HD							✓
Export for Web:							
Flash		✓	✓		✓	✓	✓
QuickTime		✓	✓		✓	✓	✓
YouTube		✓	✓		✓	✓	✓
Windows Media		✓	✓		✓	✓	✓
RealPlayer		✓	✓		✓	✓	✓
Live Text Stream	✓	✓	✓		✓	✓	✓
Export Subtitles:							
DVD subtitles (DVDSP, Encore, etc.)		✓	✓		✓	✓	✓
Apple XML Subtitles					✓	✓	✓
Advanced subtitles (Scenarist, Blu-ray BDN)					✓	✓	✓
Movie with burned-in subtitles					✓	✓	✓
Subtitles with Alpha channel (QuickTime .mov)						✓	✓
Hardware Encoder Support:							
Live Captioning for broadcast	✓	✓	✓		✓	✓	✓
Post Captioning w/SMPTE timecode from tape			✓		✓	✓	✓
* Encoder-only versions cannot prepare or edit caption text/timing. Very limited edits allowed for last minute fixes only. A prepared caption formatted file or caption data from another source is required.							

CaptionMaker

CaptionMaker comes in different flavors to meet your workflow. Please identify which software you have and see the capabilities of that software below. The flavors are arranged in a way that each flavor does everything the flavor of the software in the list above and more. Below is a very brief layout of all the different flavors of CaptionMaker.

CPC CaptionMaker Feature Comparison

www.cpcweb.com info@cpcweb.com

	Live	Web	Web Plus	Classic	DV	NLE	DTV	HD Enterprise
Import:								
Plain Text files	✓	✓	✓	✓	✓	✓	✓	✓
Industry standard caption files		✓	✓	✓	✓	✓	✓	✓
Retrieve captions from existing video		✓	✓	✓	✓	✓	✓	✓
Caption Preparation*:								
Transcribe & Time Stamp videos		✓	✓	✓	✓	✓	✓	✓
Formatting & Editing	✓	✓	✓	✓	✓	✓	✓	✓
Export Captions:								
Plain Text files	✓	✓	✓	✓	✓	✓	✓	✓
All caption formatted files			✓	✓	✓	✓	✓	✓
DVD closed captions (.scc)			✓	✓	✓	✓	✓	✓
DV (720x480) video (for DVCAM, miniDV, etc.)					✓	✓	✓	✓
Line 21 CC ("Black Movie") for SD 720x486						✓	✓	✓
MPEG-2 CEA-608 captions						✓	✓	✓
HD MPEG-2 CEA-708/CEA-608 captions							✓	✓
Adobe Premiere CS5.5 HD Captions (.MCC)							✓	✓
Sony XDCAM .MXF								✓
Avid AAF								✓
Export for Web:								
Flash		✓	✓	✓	✓	✓	✓	✓
QuickTime		✓	✓	✓	✓	✓	✓	✓
YouTube		✓	✓	✓	✓	✓	✓	✓
Windows Media		✓	✓	✓	✓	✓	✓	✓
RealPlayer		✓	✓	✓	✓	✓	✓	✓
Export Subtitles:								
DVD subtitles (DVDSP, Encore, etc.)			✓	✓	✓	✓	✓	✓
Advanced subtitles (Scenarist, Blu-ray BDN)					✓	✓	✓	✓
Subtitles with Alpha channel						✓	✓	✓
UYC/UCF HD Subtitles for HDE-3000								✓
Hardware Encoder Support:								
Live Captioning for broadcast	✓		✓	✓	✓	✓	✓	✓
Post Captioning w/SMPTE timecode from tape				✓	✓	✓	✓	✓
	Live	Web Plus	Web Plus	Classic	DV	NLE	NLE	HD Enterprise

* Encoder versions cannot prepare or edit caption text/timing. Limited keystrokes allowed for last minute fixes.

A prepared caption formatted file from another source is required.

Full Version Software (with caption preparation and encoding modules)

Feature Comparisons

For a bird's eye view, please check the comparison chart at:

CaptionMaker and MacCaption: [www.cpcweb.com/caption_common/CaptionMaker and MacCaption-Features.pdf](http://www.cpcweb.com/caption_common/CaptionMaker_and_MacCaption-Features.pdf)

CaptionMaker: www.cpcweb.com/caption_common/CaptionMaker-Feature-Comparison.pdf

Web: (Closed caption preparation, Web and mobile devices, Live text streaming)

You can import raw text, format and timecode and encode closed captions to multiple formats and multiple media – with each of the below software packages.

If web streaming (QT, WMP, Flash, YouTube, Real, mobile devices) are your only need, *Web* is your solution. It lets you prepare closed captions for web video-on-demand.

WebPlus: (Web + DVD and also live closed captioning using a CC encoder hardware)

Beside web streaming (QT, WMP, Flash, YouTube, Real, mobile devices), you can also closed caption your DVDs. It lets you do live broadcast closed captioning, with your choice of closed caption inputs, including: speech recognition, steno, pre-scripted text, and traditional keyboard text entry.

Classic: (WebPlus + CC hardware interface) [formerly CPC-700]

Do you own a hardware closed caption encoder? If so, the Classic version is designed for you. It lets you enter, position and time-stamp closed captions, and it encodes closed captions with a hardware encoder. Classic is compatible with every manufacturer's hardware closed caption encoder.

DTV-Lite: (SD/HD closed captioning with AJA KONA 3 & LHi, Blackmagic DeckLink and Matrox MXO2 in FCP7 only)

If you own an AJA KONA, Blackmagic DeckLink or Matrox MOX2, DTV-Lite is designed for you. It has easy-to-use closed caption entry, positioning and time-stamping features, plus it lets you export closed captions to all HD and SD formats.

DTV: (NLE + SD/HD closed captioning with AJA KONA 3, LHi & MXO2 plus Web & DVD)

If you own a Matrox MXO2 or AJA Kona 3 or LHi, DTV is designed for you. It has easy to use closed caption entry, positioning and time-stamping features, plus it lets you export closed captions to all HD and SD formats. It can also export files for webcast closed captioning and DVD closed captioning/subtitling.

DV: (Classic + DV Encoding)

If you work with DV 720x480 video and use Firewire to transfer the video in and out of the computer, DV is for you.

[HD Enterprise:](#) (All core features included)

Are you a major closed captioning provider? If so, HD Enterprise is your designated software. It contains every core closed captioning feature CPC offers, allowing you to meet virtually any closed captioning requirement today. Its unique features include Avid AAF, XDCAM MXF, DVCPProHD, MPEG-2 with Manzanita, as well as preserving closed captions during an assemble edit.

[Live:](#) (Realtime closed captioning, Live text streaming)

Closed caption live video using speech recognition software or a steno machine. Also, stream text on the web for live events. You can also caption videos with pre-scripted text on the fly without using timecodes. Requires hardware encoder for both closed and open captions.

[MacCaption Player:](#) (Plays SD/HD videos with closed captions for video exhibits) - Mac only
MacCaption Player is a software program that is designed for video exhibits that require accessibility for deaf or hearing-impaired customers and patrons. The Player software can connect to a custom wall mounted button that can be accessed by the public in order to view subtitles over the video played on a standard SD/HD TV.

[YouCaption™:](#) (Live Captioning using speech recognition)

YouCaption's advanced approach to speech recognition captioning provides accurate results with minimal lag or buffering time.

Note: YouCaption is not part of CaptionMaker. It is included here on the list just for completeness.

Encoding Only Software (no preparation option)

Do you already have a formatted and timecoded closed caption file from a closed caption service provider? If so, our encoder only software is the right choice for you.

[Classic Encoder:](#) (Classic but no closed caption preparation option) [formerly CPC-710]

If clients provide you with time-stamped closed caption files, and you just need to encode closed captions with a hardware encoder, Classic Encoder is your economical closed caption software solution.

[DV Encoder:](#) (DV but no closed caption preparation option)

If you only need to do closed caption encoding only because your clients provide a time-stamped closed caption file, and you go in and out of your NLE with Firewire, then DV Encoder will encode you closed captions with software only – no hardware encoder required.

[DTV Encoder:](#) (DTV but no closed caption preparation option)

Same as NLE Encoder plus encodes SD/HD with MXO2, AJA Kona 3 & Blackmagic DeckLink for FCP7 and Adobe Premiere.

[HD Enterprise Encoder:](#) (HD but no closed caption preparation option)

Same as DTV encoder, plus encodes closed captions for all HD materials, including Avid AAF and XDCAM MXF.

Automatic Time Stamp (ATS)

ATS dramatically reduces the time it takes to caption your videos. Details: www.cpcweb.com/ats

This feature works very well for videos with high quality audio. It does not work as well if the audio has already been mixed with music or sound effects, so it is isn't recommended for use with pre-mixed dramatic content, music videos or videos with lots of background noise or low fidelity audio, such as telephone or VoIP recordings.

Until now, synchronizing captions was a labor-intensive, time consuming process. Your options were limited to doing the time stamping yourself, or paying a service on a recurring basis to do it for you. Today, CPC offers a new option: Software that time stamps automatically, offering advantages such as:

- Eliminates the need to time stamp manually.
- Allows you to time stamp captions on an unlimited number of videos for an annual fee.

Requirements

- An accurate transcript.
- A video with a high quality audio track (i.e. good signal-to-noise ratio).
- See our [System Requirements](#) page for minimum computer specs

Results

- Automatically synchronizes each caption; no need to manually time stamp captions. (This labor-saving option takes CaptionMaker's existing feature of automatically breaking unformatted text into captions to the next level of automation).
- The process is much faster than real-time (15 times to 30 times faster, depending on the speed of your computer).
- The software automatically detects captions with poor synchronization and highlights them in red, so you can spot check and manually correct these captions if you so choose.

Best Practices

- An accurate transcript is vital. To get good results, the transcript cannot deviate significantly from the audio.
- High quality audio is also the key. Compression, sound effects or music can distort the sound.
- Speaker IDs that are indicated with >> **Name:** will be treated as unspoken text.
- Non-verbal information, such as music or sound effect indications, should be enclosed by brackets like this: **[MUSIC]**, or **[Applause.]**
- If the software highlights some caption lines as low confidence, you might want to do a quick AutoSync to spot check these sections. In many cases the low confidence sections may be fine or close enough for your needs. If not, you can do a manual time stamp just on these few sections to improve the alignment.
- As of August, 2011, Auto Time Stamp supports English language audio only.

Caption Style Guidelines

Adhering to good caption style is very important. Below is an excerpt from <http://www.captioningkey.org/>

Captioning is the key to opening up a world of information for persons with hearing loss or literacy needs. There are more than 30 million Americans with some type of hearing loss. Millions of others are illiterate, learning to read, or use English as a second language.

The first captioning of any kind was performed in the late 1950's by Captioned Films for the Deaf, the ancestor of DCMP, two decades before the advent of closed captioning on broadcast television. The first edition of the *Captioning Key* was published in 1994, and these guidelines were based on decades of experience by DCMP (then called Captioned Films and Videos Program), review of captioning research, and examination of standards developed by various captioning vendors. The *Captioning Key* applied to both entertainment and educational media has been used for consumers at all levels (children through adults), has received international distribution, and has been translated into other languages.

These guidelines are a key for [vendors performing captioning](http://www.dcmp.org/caai/nadh11.pdf) (<http://www.dcmp.org/caai/nadh11.pdf>) for the DCMP. (The DCMP provides information on [how to become an approved vendor](http://www.dcmp.org/caai/nadh27.pdf) <http://www.dcmp.org/caai/nadh27.pdf> on DCMP Web site.)

The information is applicable to vendors and other businesses that provide closed captioning (CC) and subtitles for the deaf and hard of hearing (SDH) of all types of media at various levels. Thus, these guidelines will also be useful to media producers/distributors and others who are considering captioning their products or learning about captioning. Some background information and rationale are included for the novice.

For those who wish to save a copy of this resource to their computer, a [PDF version of the *Captioning Key*](http://www.captioningkey.org/captioning-key.pdf) (<http://www.captioningkey.org/captioning-key.pdf>) is available for download from the DCMP. In addition, a [Spanish translation of the *Captioning Key*](http://www.dcmp.org/caai/nadh52.pdf) (<http://www.dcmp.org/caai/nadh52.pdf>) is also available for download and use.

Transcribing Video

If you do not have a script of the video, you can get the script in many ways, such as:

- Typing the script on a regular keyboard. If you use a digital video file, you can use a foot pedal control like [vPedal](#) to help you transcribe the video. It costs less than \$100 and will greatly speed up the transcription process.
- Train speech recognition software such as [Dragon Naturally Speaking](#) for a few hours. Then listen to the videotape and repeat the dialogue into the microphone. At the beginning, you are going to get lot of errors. But you can teach the software to fix the errors and down the road you can expect to get about 95% accuracy.
- Use a professional transcription service. This is the easiest but most expensive way to generate the script.

CPC can import scripts from a text file and most word processors, such as Word files.

There is no special trick to transcription. It is by far the most time-consuming aspect of the closed captioning/subtitling process. But, there are methods that ensure that you are transcribing in the most efficient way possible. Below are a few methods to transcribe a video.

Use a Video File

If you are not already doing so, make sure that you are using a video file, and not videotape, as your video source. Trying to transcribe from a tape can wear out your tape deck, and you'll spend too much time starting and stopping the tape.

USB Foot Pedal

A very popular tool for transcribing is a USB Foot Pedal. The VPedal is a tool that allows you to control QuickTime, Windows Media Video, and a number of other types of digital media. You can start, stop, rewind, and fast-forward your digital video with your foot, while typing directly into your word processor. What makes the foot pedal method so efficient is that you never have to take your hands off the keyboard. Eventually, you're able to get into a rhythm with your hands and foot so that you are constantly typing.

Speech Recognition Software

Speech Recognition Software has advanced greatly in the past few years, and has become a reliable transcription tool. The transcription method using speech-recognition employs "shadow speaking", whereby the user repeats what he or she hears in the video into a microphone. Before you use any type of speech-recognition software, such as Dragon Naturally Speaking or MacSpeech, you'll need to train with the software. This usually consists of reading stories provided by the software. After you've read a story, the software analyzes your voice and compares it to the text in the story. You'll also need to practice the technique of shadow speaking, which isn't difficult but takes time to get good at.

At this time, there is no technology that can reliably take a video or audio file and automatically transcribe all of the text without human intervention. Speaker-independent speech recognition systems typically achieve around 60-70% accuracy, whereas 90-95% accuracy is the minimum for closed captioning.

Transcription Service

Often, it is more cost-effective to simply pay a service to transcribe your material. There are many online services that allow you to upload an .mp3 and they will provide you with a text transcription within a day. Ideally, you should be able to find a local individual whom you can trust for quick and accurate transcription.

Preparing Caption File (CaptionMaker)

Importing Files

CaptionMaker can import many different files.

CaptionMaker supports the following file formats for importing

Text:

.DOC .TXT

Captions/Subtitle:

*.ASC .CC .CAP
.CIN .MCC .ONL
.SBV .SCC .SMI
.SRT .SST .STL
.TDS .TXT .ULT
.XML*

Video:

*.AVI .FLV
.M4V .MOV
.MPG .WMV*

(some videos formats may require you to download codecs)

Video Tutorials

[Importing Text](#) (1:16)

[Importing Video](#) (0:48)

[Formatting Text Basic Tools](#) (2:27)

[Formatting Text Advanced Tools](#) (1:31)

[Synchronizing Captions \(Timing\)](#) (3:17)

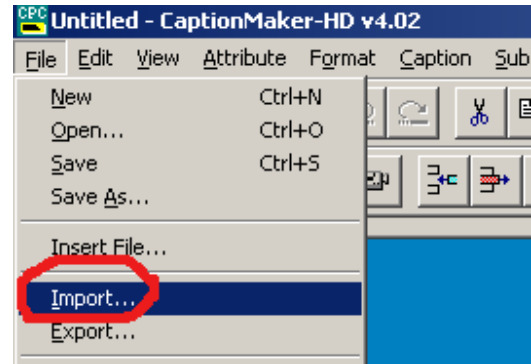
[Checking your Timing](#) (1:22)

Importing Text File

CaptionMaker can import plain ASCII text, MS Word or an rtf file. Follow these steps:

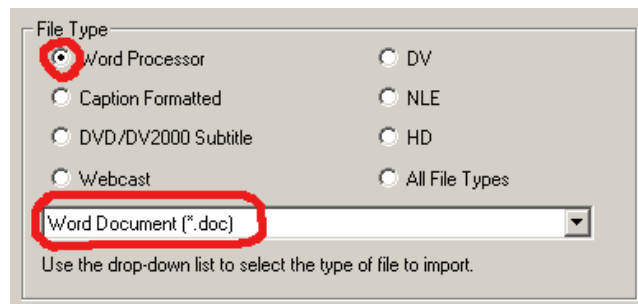
Step 1:

Click on “File” on the top menu bar, then select “Import.”



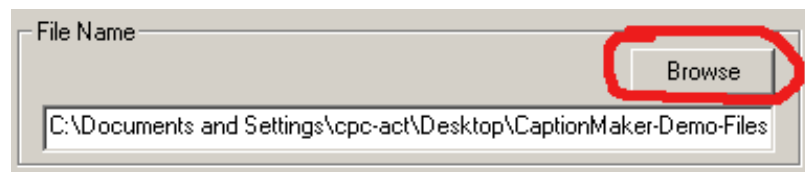
Step 2:

Under “File Type” select “Word Processor,” then select what type of word document it is.



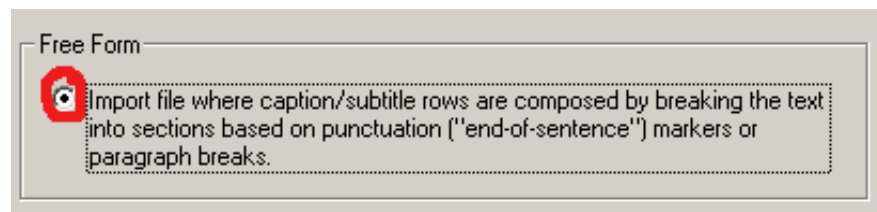
Step 3:

Below that click “Browse” and select your caption text file.



Step 4:

Click “Next” and make sure that the “Free Form” option is selected.



Step 5:

Click “Next” again and select the options that you want. We recommend these settings for most captioning projects. The maximum number of characters for each line should be between 26 to 32 characters.

Import Options

Options

- Each row made of line(s) of text.
- End a row with end of sentence punctuation (. ? !)
- End a row with a comma (,) or semi-colon (;) if applicable.
- End a row with:
- Start a row with:
- Maximum number of characters for each line of text:
- Format multi-line blocks as bottom-heavy.
- Square up text if more than one line of text in a row.

Display Mode:

- Pop-On
- Paint-On
- Roll-Up 2 Lines
- Roll-Up 3 Lines
- Roll-Up 4 Lines
- Block Roll-Up

Step 6: After selecting options, click Finish.

Video Importing

In order to bring in video follow these steps:

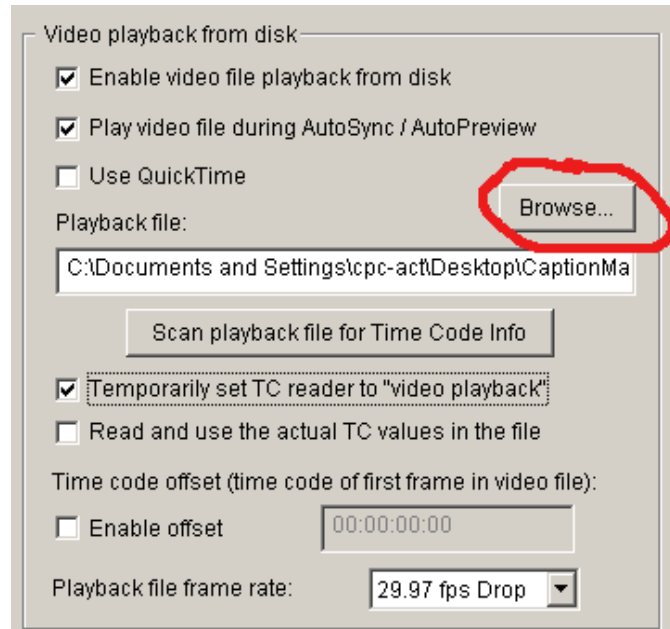
Step 1:

Click on the Video Camera Icon.



Step 2:

Make sure that the following selections are checked:
Use QuickTime (only if it is a QuickTime file)



Step 3.

Click "Browse" and locate the video file that you want to import.

Step 4:

Click "Close."

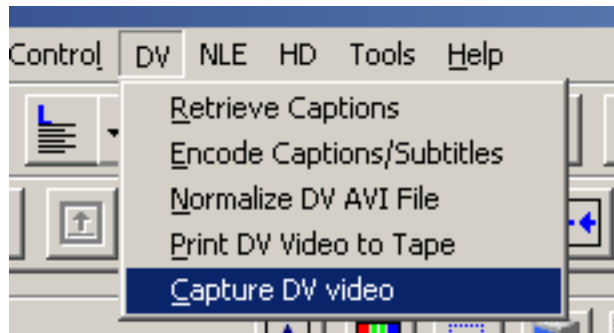
Your video will now appear in your preview window.

Video Capturing

If you do not have a digital video of your project, and want to capture video from tape or other sources through firewire into CaptionMaker, then follow these steps:

Step 1:

Select “DV” from the top menu.

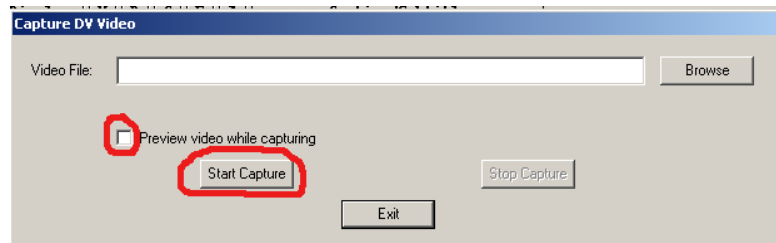


Step 2:

Select “Capture DV Video”

Step 3:

Where it says “Video File” write the name of your captured video and browse to select where you want to save it.



Step 4:

Check the “Preview Video While Capturing.” Box.

Step 5:

Click “Start Capture”

Step 6:

Once Capturing is complete close preview box.

Step 7: Now you bring in the video by following the steps for video importing.

Formatting Text

Step 1:

The push and pull arrows allow you to pull text up from the caption below or to push text down to the next caption line.



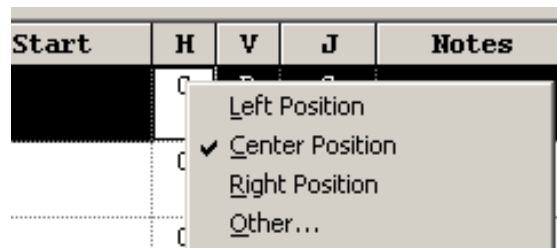
Step 2:

The expand and contract option allows you adjust the amount of lines that your caption will be on ranging from 1-4 lines. One line will expand the caption and four lines will make it narrower.



Step 3:

To change the *horizontal* positioning of the text you can right click on *horizontal* justification column and select where you want it.



Step 4:

To change the *vertical* positioning of the text, right click on the *vertical* justification option, just as you did in step 3 and select where you want it.

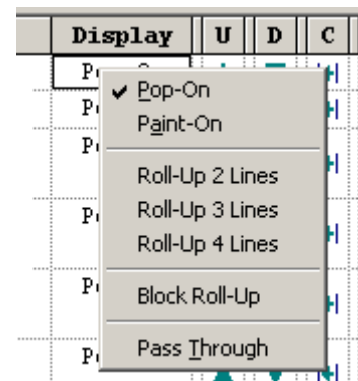
Step 5:

To change the *justification* of the text within the caption area, right click on the *justification* option and select where you want it.

Step 6:

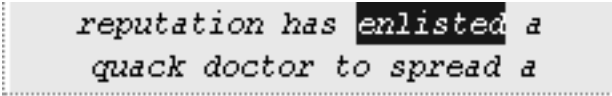
In order to change the caption display option, right click the display box and select the display option you would like for that individual caption.

To change all of the captions to a different display, select the display column and then right click and select the caption display you want.



Step 7:

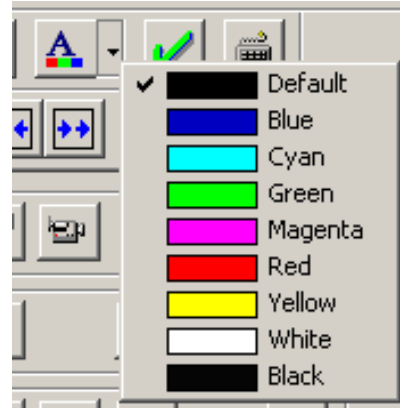
To change the text you need to highlight the text that you want to change



and then select the underline, italicize or blink option.



If you desire to change the color of the text, highlight the text to be changed and select from the color options.



Synchronizing Timecode

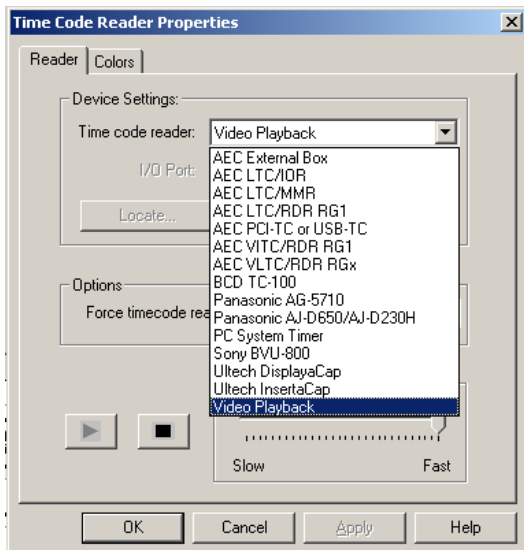
Step 1:

Make sure that the “Mark Timecode On” icon is selected.



Step 2:

If you are using an external timecode reader, then select the “Timecode Properties” icon,



then select the type of timecode reader that you are using.

For digital videos, choose “Video Playback”.

If you are using our software as the timecode reader, then make sure that “Video Playback” is selected. Click “Apply” and then “Okay.”



Step 3:

Now that the settings are set correctly, you are ready to start the time stamping process. Make sure that the video is at the beginning, by selecting the scrubber and dragging it to the left.



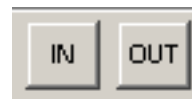
Step 4:

Select the first caption box, then hit “Play” on the VTR controls.



Step 5:

Press the “+” on your keyboard to set the timecode in, or select the “IN” icon.



Make sure that you are selecting the in-point for the exact time that you want the text to appear.

Step 6:

Every time you press the “+” key on your keypad (or the “IN” icon) you will notice the timecode appearing under “Start” and you will automatically move down to the next caption.

Step 7:

#	Start
1	00:00:09:07
2	00:00:12:19
3	00:00:15:17

If you need to change the timecode that you had set, simply click on text of where your mistake, hit play and continue with the time stamping. You may also put in the timecode manually.

Automatic Time Stamp (ATS)

Until now, synchronizing captions was a labor-intensive, time consuming process. Your options were limited to doing the time stamping yourself, or paying a service on a recurring basis to do it for you. Today, CPC offers a new option: Software that time stamps automatically, offering advantages such as:

- Eliminates the need to time stamp manually.
- Allows you to time stamp captions on an unlimited number of videos for an annual fee.

Details can be found at: www.cpcweb.com/ats

Checking Your Timecode

Step 1:



After time stamping all of your captions, you can preview what they are going to look like by clicking the “AutoPreviewSync” icon.

The preview will begin with whatever caption you have selected.

Step 2:

If you want to change the timecode for exporting to tape so it would start at 01:00:00:00, instead of 00:00:00:00, then you would select the line where you want to ripple the timecode from, and right click on it.

Start	WPM	H	V
00:00:09:07	0	C	R
00:00:12:00			
00:00:15:00			

Ripple...

Reading Speed...

Fill-In Time Code...

Step 3:

Select “Ripple” and then change the timecode to reflect the 1 hour mark. Click okay.

Now you will notice that all of the caption timecodes are rippled to the 1 hour mark.

Ripple Time Code [X]

Starting row #: Ending row #:

New starting time code for selected range:

Number of frames to add to all time codes:
(To subtract frames, enter a negative number)

Preparing A Caption File (MacCaption)

Importing Text

Step 1:

Make sure that your text is saved as "plain text" or as a "script" file. If it is not, this can be done easily in the text edit program on your Mac.

Step 2:

Once converted, drag text file onto caption area in MacCaption. This will create a blue box around your text area.

Step 3:

The following options will pop-up.

If you want to have every line in your text be a new caption (used for roll-up mode), then you can select the first option: "Treat each line of text as one caption." The option we selected will allow you to customize number of lines, characters, punctuation and display mode. (Used for pop-on mode)

Video Tutorials

[Importing Text](#) (2:11)

[Importing Video](#) (0:58)

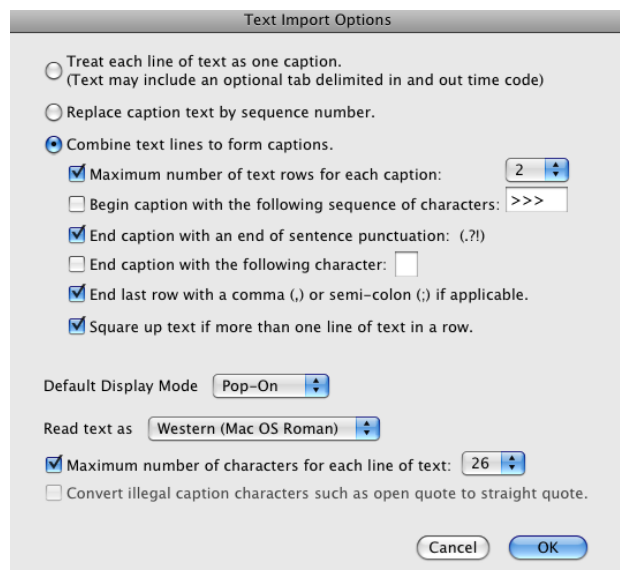
[Formatting Text Basic Tools](#) (3:43)

[Formatting Text Advanced Tools](#) (5:07)

[Synchronizing Captions \(Timing\)](#) (3:39)

[Checking your Timing](#) (2:18)

and many more at: cpcweb.com/tutorial



Importing Video

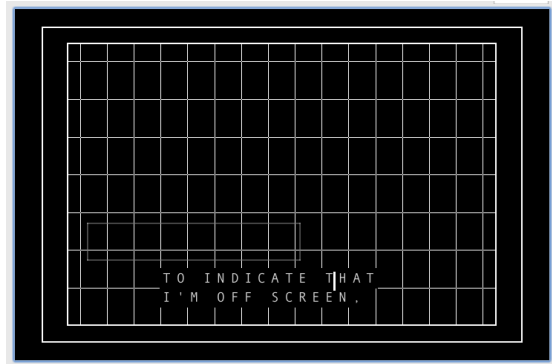
Step 1:

Your video must be QuickTime compatible, .mov, mp3, mp4, .avi, or any format that can be played by QuickTime Player using plug-ins.

Step 2:

Drag that video file into the preview screen.

Your video will appear in the preview screen.



Importing Files

MacCaption can import many different files.

MacCaption supports the following file formats for importing

Text:

.DOC .TXT

Captions/Subtitle:

.ASC .CC .CAP

.CIN .MCC .ONL

.SBV .SCC .SMI

.SRT .SST .STL

.TDS .TXT .ULT

.XML

Video:

.AVI .FLV

.M4V .MOV

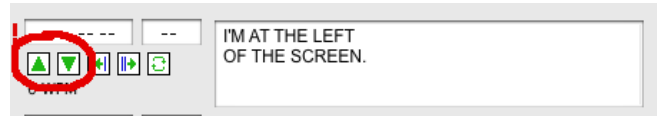
.MPG .WMV

(some videos formats may require you to download codecs)

Formatting Text

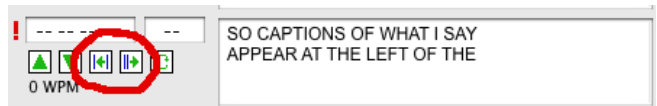
Step 1:

The push and pull arrows allow you to pull text up from the caption below or to push text down to the next caption line.



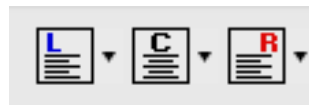
Step 2:

The expand and compress option allows you adjust the amount of lines that your caption will be displayed on ranging from 1-4 lines. The text will be placed on one line of caption or as many as four lines of captions.

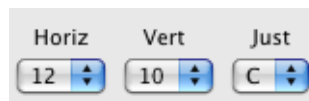


Step 3:

To change the position of the text on the screen from left, center, and right use the LCR icons.



To change the justification and horizontal placement of the text, use the horizontal, vertical and justification icons.



Step 4:

To change the format of the text use italicize and underline, or flash icons.

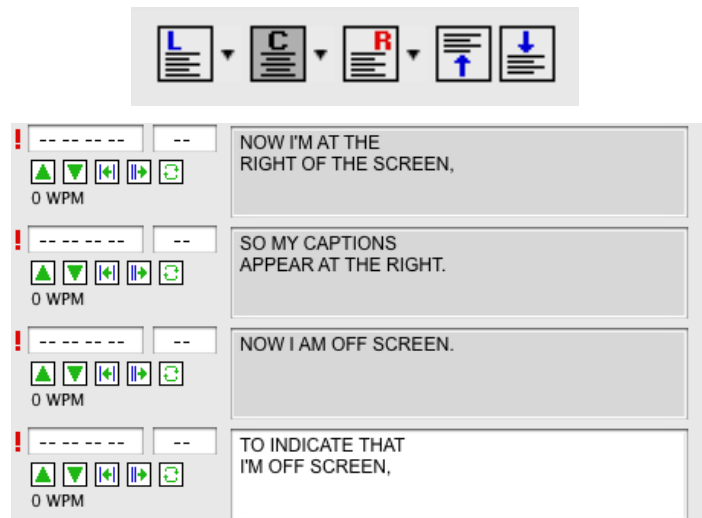


Formatting Text (advanced)

Step 1:

To move a group of caption blocks around, highlight caption blocks and then select the feature that you want from the icons.

Select all by using Cmd-A.



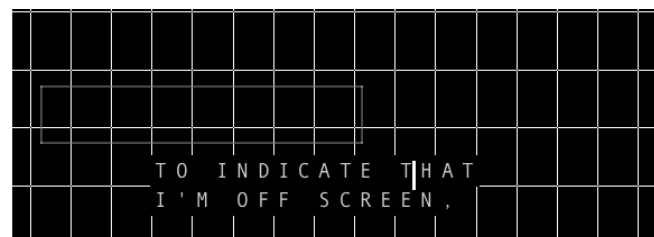
Step 2:

In order to split a caption block, double click on the top caption and then drag it to the desired location.



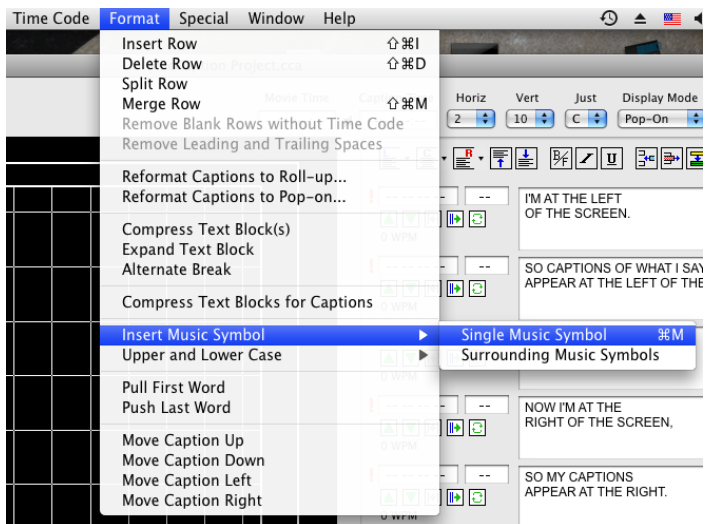
Step 3:

To move the entire caption box just click on the caption on the preview screen and move it manually wherever you please.



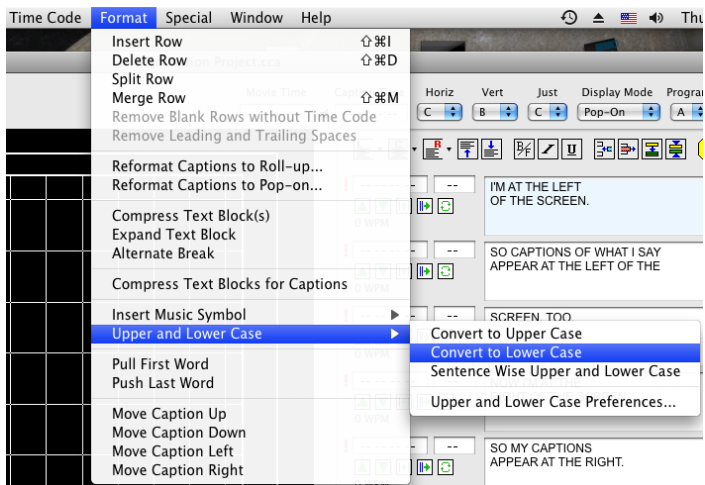
Step 4:

Music Symbol: If you want to add music symbols to your text go to "Format" then select "Insert Music Symbol."



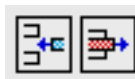
Step 5:

In order to change text to all upper or lower case go to "Format" then select "Upper and Lower Case."



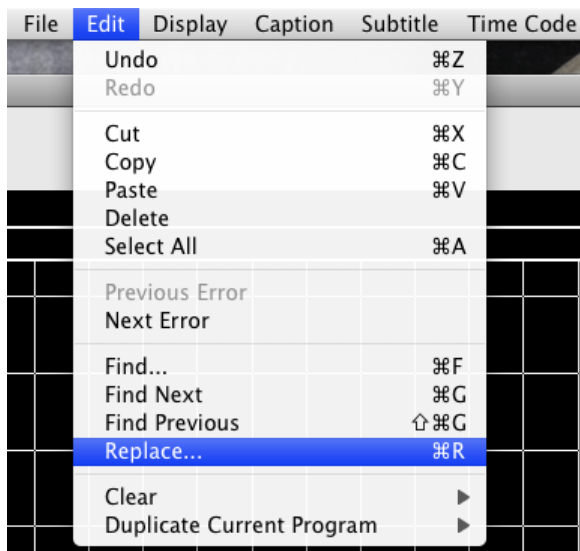
Step 6:

To add or delete a row use these icons.



Step 7:

If you are trying to search for a word in the text go to "Edit" and click on "Replace." This will allow you to search for a word or replace the word you are looking for with a new word.

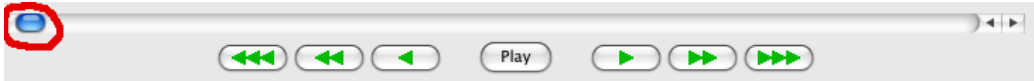


Synchronizing Captions (Time Stamping)

Now that you have your text and your video imported into MacCaption, you are ready to timestamp (or you can try Auto Time Stamp to do this process automatically).

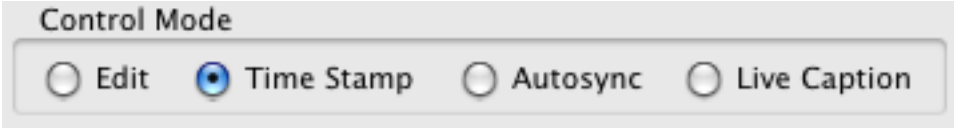
Step 1:

Make sure that you select the top caption and that the scrubber is all the way on the left under the video.



Step 2:

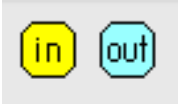
If you click on the play button on the preview screen it will automatically change the control mode to "Time Stamp."



Step 3:

While the video is playing hit the "in" button, or you can hit the plus button on number pad of your keyboard.

Notice that every time that you hit the "in" button there is timecode being recorded. That timecode is when the caption is going to appear on your final video.



Step 4:

You can also control the video playback with the J, K, L keys on your keyboard. After Timestamping you are ready to check your timing.

Automatic Time Stamp (ATS)

Until now, synchronizing captions was a labor-intensive, time consuming process. Your options were limited to doing the time stamping yourself, or paying a service on a recurring basis to do it for you. Today, CPC offers a new option: Software that time stamps automatically, offering advantages such as:

- Eliminates the need to time stamp manually.
- Allows you to time stamp captions on an unlimited number of videos for an annual fee.

Details can be found at: www.cpcweb.com/ats

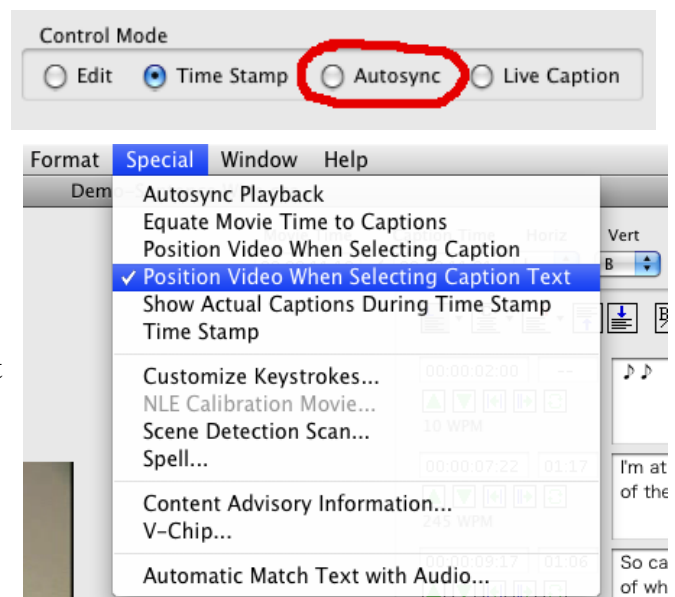
Checking Your Timing

Now that you have the captions positioned the way you want and time stamped, it's time to check your work.

Step 1: Under "Control Mode"
select "AutoSync."

Step 2: The video will play in sync
with the captions.

Step 3:
If you want to check a particular caption you can use the scrubber under the preview screen to select where you want to start previewing from or you can go to "Special" and select "position video when selecting caption text." Now, every caption you click on will be where the auto sync will begin playback.



Note:

If you want to change the timecode for exporting to tape so it would start at 01:00:00:00, instead of 00:00:00:00, then you would select the captions which you want to ripple the timecode. Choose the Ripple option from the timecode menu.

Imports and Exports

In this section, we will explore in brief some of the export functions of CaptionMaker and MacCaption. It is important to note that not all versions of CaptionMaker and MacCaption have the same exporting capabilities. See this document for a side by side comparison of all the features at a glance:

Comparison Charts

Check all the imports and exports for different flavors of CaptionMaker and MacCaption

MacCaption: www.cpcweb.com/caption_common/MacCaption-Features.pdf

CaptionMaker: www.cpcweb.com/caption_common/CaptionMaker-Feature-Comparison.pdf

Both CaptionMaker and MacCaption have a variety of export options, including formats for DVD, Blu-ray, Web, MPEG, DV over Firewire, Standard Definition broadcast for NLEs, and HD and SD output for Final Cut Pro, Avid, and Adobe Premiere. Depending on which version of the software is ultimately purchased, different features will be available.

From here you will be able to familiarize yourself with the different file formats available for exporting text, caption files, and caption encoded video files. At this point, we encourage you to export any one of the different formats, using the Demo.cca sample file, and test the integration of those files into your workflow.

Exporting Caption Formatted Text Files

Both CaptionMaker and MacCaption are able to export to almost all standard captioning formats, which often will appear as a text file on your computer. Formats such as Cheetah .CAP and .SCC have been used for years to transfer caption data from computers to tape and back again, or to exchange caption files with other captioners and other software.

Exporting Caption Formatted Video Files

CaptionMaker and MacCaption also export caption formatted video files for a variety of purposes. In some cases CaptionMaker and MacCaption add closed captions to your video directly, in others it creates a video file containing the closed caption data that must be integrated into your workflow so your final deliverable will have captions (this is especially common with workflows that go to tape).

In order to be able to export video and have it integrate seamlessly into your workflow, it is important to understand the various ways in which CaptionMaker and MacCaption work with video. Both CaptionMaker and MacCaption bring your video and transcript together, and from there you have to choose what path the captions take so they don't get left behind.

Web

Web software allows you to export captions to a variety of web formats. Workflows are available for Flash, QuickTime, Windows Media Player, and Real, each with their own specific export tailored to work with that format. More info: <http://www.cpcweb.com/solutions/web.htm>

About the links in this guide

If you are using a paper copy of this guide, you have access to only a small fraction of the resources found in the online guide, which is available for CaptionMaker and MacCaption software. (The links are too long for you to re-type from the paper guide).

To access the guide from the software, go to the Help menu and choose Quick Start Guide, which will give you access all the links in this guide. There is a wealth of information in the links. We urge you to take advantage of them by viewing them from the online guide.

For a complete list of all imports/exports, please check the following links:

MacCaption: www.cpcweb.com/caption_common/MacCaption-Features.pdf

CaptionMaker: www.cpcweb.com/caption_common/CaptionMaker-Feature-Comparison.pdf

Video tutorials for both CaptionMaker & MacCaption: www.cpcweb.com/tutorial

QuickTime Player, or on a mobile device like Apple iPad, iPod, iPhone, etc. This format supports closed captions exactly like a TV, so all the formatting and positioning comes out the same as it does on broadcast.

Flash videos typically use a Timed Text (DFXP) .XML file, or a SubRip .SRT file, to contain the captions in a file separate from the video file. These captions are tied to the video by the web master. The exact process depends on which flash player is used on your web site. One popular choice is FlowPlayer, and you can see a sample here: http://cpcweb.com/flowplayer/flowplayer_sample.htm

Windows Media videos use a separate SAMI .SMI file to contain the captions. This file should be given the same file name as the video (except for the extension) and placed in the same folder as the WMV video file.

YouTube uses a format called YouTube .SRT (different from SubRip .SRT). Once the video itself has been uploaded to YouTube, the account owner can go to the video Edit page, and upload the YouTube .SRT file under the Captions menu.

WebPlus

WebPlus software allows you to export captions to a variety of web formats as described in the last chapter, **Web**. WebPlus can additionally export a caption formatted .SCC file which is mainly used for DVD authoring with software like Adobe Encore and DVD Studio Pro, but also is useful for some FCP and Compressor workflows as well. More info:

<http://www.cpcweb.com/webplus.htm>

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Video tutorials for both CaptionMaker & MacCaption: www.cpcweb.com/tutorial

DVD Closed Caption File Format

A DVD closed caption file is a binary file consisting of a number of lines - one line for each closed caption. Each line starts with a time code which is separated from the closed caption data (in binary format) by a tab character.

To see how a DVD .scc file is exported from CaptionMaker (Win), watch this short video:

[Exporting DVD Closed Captions *.SCC file](#) (1:01)

To see how a DVD .scc file is exported from MacCaption (Mac), watch this short video:

[Exporting DVD Closed Captions *.SCC file](#) (1:15)

DVD Subtitle Formats

Here is an example of a DVD subtitle navigation file used by most DVD authoring systems.

MacCaption/CaptionMaker creates as many files as the number of subtitles. It also creates a navigation file. The navigation file lists details (time code, size and position) of each subtitle.

The first item on a line is the name of the TIF file which is a computer picture file of a subtitle using a TrueType Windows font. The next two items are the in and out time codes of a subtitle. The next two items after that are width and height of a subtitle. The last two items are the position of a subtitle on a 720X480 screen.

To see how DVD subtitle files are created from CaptionMaker (Win), watch the short video: [Exporting DVD-Video Compatible Subtitles](#) (0:59)

To see how DVD subtitle files are created from MacCaption (Mac), watch the short video: [Exporting DVD-Video Compatible Subtitles](#) (1:12)

Since the picture files are rather large, for a one hour video, the size of all the files could easily be close to 50MB. After zipping, it can be reduced to close to 2.5MB.

Note: You need a DVD authoring system to insert the subtitles/captions on the DVD. The CPC software may be used in conjunction with a DVD authoring system to create the subtitle/caption files that your authoring system requires.

DV

DV software includes all the options of WebPlus and also allows you to digitize video over Firewire, create a DV video file that you can then caption and print directly back to tape.

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To access the guide from the software, go to the Help menu and choose Quick Start Guide, which will give you access all the links in this guide. There is a wealth of information in the links. We urge you to take advantage of them by viewing them from the online guide.

The DV workflow is ideal for captioning various analog tape formats such as VHS, Hi8, 8mm (through a video converter with Firewire), as well as several DV video formats including Digital8, DV, MiniDV and DVCAM. The export for DV actually adds captions to the DV file itself in as part of the DV codec, allowing you to print back to tape via Firewire with captions. More info: <http://www.cpcweb.com/dv/>

For a complete list of all imports/exports, please check the following links:

MacCaption: www.cpcweb.com/caption_common/MacCaption-Features.pdf

CaptionMaker: www.cpcweb.com/caption_common/CaptionMaker-Feature-Comparison.pdf

Video tutorials for both CaptionMaker & MacCaption: www.cpcweb.com/tutorial

To closed caption a video, you need the transcript of the video. There are many ways to transcribe a video. After obtaining the [transcript](#), you will then import the script to the CPC software and format the script. Finally, you will listen to the video and synchronize the closed captions to the video by associating timecode to each closed caption manually. For details, see the [closed caption preparation page](#).

Once you have a time stamped text file, you can add closed captions to a DV video by a simple mouse click. Then you use a print to tape function to dump the video to a tape (DV or BetaSP) via FireWire. The closed caption data is transferred to line 21 of NTSC video by most DV tape decks or digital to analog converters like the Sony DVMC-DA2.

Closed caption data sits in the VAUX Data area of a 720x480 DV video. On the other hand, closed caption data sits in Line 21 of NTSC (525 lines) video. When you transfer the DV video to NTSC, you must use a deck which can transfer the closed caption data from the DV VAUX data area to the NTSC Line 21.

NLE

The NLE Workflow is geared towards users who work with professional 720x486 video in SD with a Non-Linear Editing application (i.e. Final Cut Pro, Adobe Premiere, Avid, etc...). The NLE workflow consists of exporting a caption encoded video file from CaptionMaker and MacCaption (called a “black movie”) that you drop into the top video track of your final timeline in your NLE. Once it is in your timeline, you simply crop the black movie 98% from the bottom so that only the caption information on the top is visible. You can now output to tape with captions! Black movie files are small enough to zip and email, allowing captioners to work remotely. More info: <http://www.cpcweb.com/nle/>

About the links in this guide

If you are using a paper copy of this guide, you have access to only a small fraction of the resources found in the online guide, which is available for CaptionMaker and MacCaption software. (The links are too long for you to re-type from the paper guide).

To access the guide from the software, go to the Help menu and choose Quick Start Guide, which will give you access all the links in this guide. There is a wealth of information in the links. We urge you to take advantage of them by viewing them from the online guide.

For a complete list of all imports/exports, please check the following links:

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To closed caption a video, you need the transcript of the video. After obtaining the transcript, you will then import the script to the CPC software and format the script. Finally, you will listen to the video and synchronize the closed captions to the video by associating timecodes to each closed caption manually.



[Sample 720x486 Black Movie.](#)

The closed caption data is the tiny dashes near the top of the video.

CPC software then exports a 720x486 black video with closed caption data on row 0 or 1. Avid systems, for example, the closed caption data sits on Row 1 and column 26. The 720x486 video file is then imported into the NLE system and put on the time line along with the original video. A picture-in-picture or crop effect is then applied to the imported video to mask off all but the closed caption image line to merge the imported video with your original video.

In case you are not adding the closed captions to the video yourself, you can send this black video to the video editor at a different location to superimpose closed captions to the original video. Because these files are 99% black, they can be zipped to about 0.15% for transport. The .zip file can then be emailed or ftp'd to the video editor. You don't have to worry about big file sizes.

When you transfer the 720x486 video to NTSC via the NLE hardware (not Firewire) the closed caption data from Row 0 or Row 1 of 720x486 video is transferred to Line 21 of NTSC video. You can get a [sample of our 720x486 NLE video](#) for your NLE system and see the closed captions being output to your TV.

Please check the following links for details on NLE workflow:

Compatible NLE systems: www.cpcweb.com/nle/nle-hardware.htm

Calibration video: www.cpcweb.com/blackmovie

Printing captions to tape: www.cpcweb.com/nle/nle-printtotape.htm

DTV

DTV software includes all the options of DV software, and also introduces several professional video workflows:

The FCP Workflow is for outputting SD or HD video from Final Cut Pro 7 over an AJA KONA card, Blackmagic DeckLink card, or Matrox MXO2. FCP7 has a new feature that allows you to add captions on output by pointing to a file with closed caption data that only CaptionMaker and MacCaption can create. Blackmagic and KONA cards can see this data and use it to add captions to your output. The Matrox MXO2 uses a custom workflow that even allows you to down-convert your captions from HD to SD in real time. Caption files for DTV workflows are also small enough to zip and email, allowing captioners to work remotely. More info: <http://www.cpcweb.com/solutions/fcp.htm>

About the links in this guide

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To access the guide from the software, go to the Help menu and choose Quick Start Guide, which will give you access all the links in this guide. There is a wealth of information in the links. We urge you to take advantage of them by viewing them from the online guide.

The Adobe Premiere Workflow is for outputting SD or HD video from Adobe Premiere CS 5.5 or later via a hardware card like a AJA KONA, etc. using a .MCC file (HD) or .SCC file (SD). More info: <http://www.cpcweb.com/solutions/adobe.htm>

MPEG-2 is a common file delivery format and professional video codec which The DTV software can add captions to. Both CaptionMaker and MacCaption allow you to add captions to generic HD or SD MPEG-2 Elementary and Program streams. Transport streams are also possible using a 3rd party plug-in from Manzanita. More info: <http://www.cpcweb.com/hdtv/mpeg.htm>

For a complete list of all imports/exports, please check the following links:

MacCaption: www.cpcweb.com/caption_common/MacCaption-Features.pdf

CaptionMaker: www.cpcweb.com/caption_common/CaptionMaker-Feature-Comparison.pdf

HD Enterprise

HD Enterprise software provides all of the features of DTV, but also includes features that are designed for high-end captioning.

About the links in this guide

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To access the guide from the software, go to the Help menu and choose Quick Start Guide, which will give you access all the links in this guide. There is a wealth of information in the links. We urge you to take advantage of them by viewing them from the online guide.

All exports

For a complete list of all HD exports, check page 3 of

MacCaption: www.cpcweb.com/caption_common/MacCaption-Features.pdf

CaptionMaker: www.cpcweb.com/caption_common/CaptionMaker-Feature-Comparison.pdf

Video tutorials for both CaptionMaker & MacCaption: www.cpcweb.com/tutorial

Closed caption all your SD and HD videos using:

- [Adobe Premiere Pro CS5.5](#)
- [Avid Media Composer 5.0](#)
- [Matrox MXO2 in Final Cut Pro](#)
- [AJA KONA and IO HD in Final Cut Pro 7](#)
- [Blackmagic DeckLink in Final Cut Pro 7](#)
- [Tapeless file formats](#)
- and much more!

FCPX and CaptionMaker and MacCaption

With FCP7, you can use print to tape to dump videos on to videotapes using cards like AJA Kona, BlackMagic Decklink, and Matrox MXO2.

FCPX does not have this option. But there is a solution. See [closed captioning with FCPX](#).

HD Enterprise contains all core features offered by CPC, allowing you to meet virtually any closed captioning requirement today and in the future. Its unique features include [Avid HD closed captioning](#), [XDCAM .MXF](#) file support, DVCPRO-HD file support [MPEG-2 closed captioning](#) with [Manzanita](#) mux, and [Assemble captions from FCP EDL](#).

The HD Enterprise supports all features listed below

- [True CEA-708](#) (and CEA-608) Software Caption Encoder
- [HD/SD closed captioning in Adobe Premiere Pro CS5.5](#)
- [HD/SD closed captioning in Avid Media Composer 5.0](#)
- HD/SD closed captioning in Final Cut Pro with [Matrox MXO2](#), [AJA KONA](#) & [Blackmagic DeckLink](#)
- HD/SD [MPEG-2 closed captioning](#) for DTV tapeless delivery, including [Manzanita](#) multiplexer support for CableLabs & other transport stream specs, and [720x512 MPEG-2 for DG Fast Channel](#)
- Caption [Panasonic DVCPRO-HD](#) & [Sony XDCAM HD MXF](#) files on your hard drive (for tapeless or tape/disc workflows and [Omneon server workflow](#))
- SD captioning using [DV](#) and [NLE](#) methods
- [Import/export](#) many standard caption/subtitle files
- [Web and mobile device captioning](#) (QT, WMP, Real, Flash, YouTube etc.)
- [DVD Captioning](#) and [DVD/Blu-ray subtitling](#)
- [Assemble Captions](#) allows you to edit previously captioned videos without losing the captions

HD Closed Captioning Workflows

Matrox MXO2

Matrox and CPC have co-developed an innovative solution that allows the MacCaption HD software to encode and decode HD captions to and from any HD or SD decks using the Matrox MXO2 and HD-SDI, SDI, and/or Analog connections.

A new feature in the latest Matrox MXO2 1.4 drivers supports down-converting HD captions to SD line 21. Now you can simultaneously print your timeline to both HD with 708/608 captions and SD with line 21 captions. This also allows you to proof your 4VANC caption track on a regular TV with a CC decoder, instead of needing an expensive HD-SDI caption decoder. The MXO2 can also up/down/cross-convert any video format to any other format while maintaining the captions. [More about the MXO2](#).

AJA Kona

MacCaption DTV and HD Enterprise software works with the AJA KONA (3, LHi, LHe, LSe) and IO HD cards along with Final Cut Pro 7 to output 708/608HD closed captions. [More about the AJA workflow](#).

Blackmagic DeckLink HD series

Both CaptionMaker and MacCaption DTV and HD Enterprise software work with the Blackmagic DeckLink (HD Extreme 3, DeckLink Studio, DeckLink Studio 2, DeckLink SDI and DeckLink Optical Fiber) cards along with Final Cut Pro 7 to output HD 708/608 closed captions. [More about the Blackmagic workflow.](#)

MPEG2 Transport, Program, and Elementary streams

The HD software ties into Manzanita's multiplexing software to generate 708/608 closed captions in CableLabs-compliant HD MPEG-2 transport streams (requires Manzanita software to be installed separately) for tapeless delivery to networks and VOD.

The HD software (including the demo version) can also decode/retrieve both 708 and 608 captions from MPEG-2 transport streams, including ATSC broadcast streams. You can verify that your stream is compliant with FCC regulations and that the 708 captions are encoded properly.

Users without Manzanita software can add captions to generic MPEG2 Elementary and Program streams. The MPEG2 can be SD or HD. Captions can be formatted in any one of the following styles: ATSC DTV 608/708, DVD, CCube/LSI DVx 608 Linear or CCube/LSI DVx 608 Temporal. SCTE20-style 608 captions can also be decoded. [More about the Manzanita workflow.](#)

Panasonic DVCPRO HD

Closed captions can be added to DVCPRO-HD .mov (QuickTime) files. The files can be used on Omneon servers, or for tape output you can use The HD software to print the captioned video via Firewire to a compatible VTR such as a Panasonic AJ-HD1400. For HD-SDI output to tape workflows, please see the [Matrox MXO2](#), [AJA](#), or [Blackmagic](#) workflows.

SONY XDCAM HD

The HD software can encode and decode closed captions from [Sony XDCAM MXF](#) files (1080i and 720p) which came from a Sony XDCAM HD deck, Avid, or Final Cut Pro via the Sony XDCAM Transfer tool. Click the link above to see a sample MXF file with captions. To output to an XDCAM HD deck via HD-SDI, please see the [Matrox MXO2](#), [AJA](#), or [Blackmagic](#) workflows.

Omneon Server

The HD software can export a closed caption encoded DVCPRO-HD file or XDCAM MXF file for playback to the Omneon Server. [More about the Omneon workflow.](#)

Avid AAF Workflow

The Avid AAF workflow allows you to output HD video with closed captions from an Avid Media Composer 5.0 or higher, Symphony 5.0 or higher, or Newscutter 9.0 or higher system. More info: <http://www.cpcweb.com/hdtv/avid.htm>

MXF Workflow

The MXF workflow allows you to embed HD closed captions into Sony XDCAM-type MXF files. These files can be used on XDCAM equipment and on many file-based video servers. More info: <http://www.cpcweb.com/hdtv/xdcam.htm>

Assemble Captions

Assemble Captions allows you to take video that has captions already, edit it in FCP or Premiere, and export an XML file which MacCaption use to create new captions that match your edited video. More info: <http://www.cpcweb.com/hdtv/assemble.htm>

Proofing your 708 captions

Please read our [Monitoring HD Closed Captions white paper](#), describing some of the issues of monitoring HD closed captions.

Note that HDMI and component connections do NOT carry closed captioning data. (DTV compatible TVs can only receive caption data as metadata in the DTV MPEG-2 transport stream, or as line 21 on the analog SD inputs.) The only high definition baseband interface which carries closed captioning data is HD-SDI.

You can use MacCaption or QuickTime Player to proof your HD captions on your Mac. MacCaption can preview your 708 captions (including Asian language and other Unicode characters supported in 708) on your computer monitor in sync with a video file. The Matrox MXO2 also down-converts your HD timeline to SD with line 21 captions in real time, so you can preview your 4VANC captions track on any regular TV with a CC decoder. If you can see the down-converted captions, then your 4VANC 708/608 caption track is working properly.

If you do not have a Matrox MXO2, or if you MUST proof 708 captions on an external monitor, then you need an HD-SDI device with a 708 captions decoder. HD-SDI 708 closed captions can be displayed using a Sony Luma monitor with the optional [BKM-244CC closed caption decoder](#) (note: not compatible with 708 roll-up or paint-on captions), or converted into open captions using an [Evertz 7760CCM-HD decoder card](#), or verified using the [Tektronix Video Test](#) waveform monitors. There are other devices capable of decoding 708 captions as well. However, we have yet to find an HD-SDI 708 captions decoder which properly supports Asian language and other Unicode characters.

Subtitling

Most versions support “Subtitle Mode” which allows you to convert subtitles to captions and vice versa. You can switch back and forth between captions and subtitles mode using Display > Display as Subtitles/Captions, or Cmd-D (for MacCaption) or using Subtitle menu and choosing a device like Generic DVD (for CaptionMaker)

Different captioning workflows are supported by different versions of CaptionMaker and MacCaption, see http://www.cpcweb.com/caption_common/CaptionMaker_and_MacCaption-Features.pdf for details.

Black Movie Subtitles are used when you want to deliver just the subtitles as a separate file, without the original video. This is handy if your editor wants to add burned-in (permanent) subtitles to a video using their NLE system. The subtitles file has an alpha channel so that it can be overlaid on top of the original video. These files are very small so they are easy to e-mail to an editor.

Movie with Separate Subtitles is used when you want to export a high quality video with subtitles as a separate layer together in a single QuickTime file. However, if you're going to hand this video off to someone else, there is one more step. Because some other software doesn't read the extra subtitles layer, you should "flatten" the file by exporting it via QuickTime Pro or Compressor. This lets you choose the final specs of the file such as the codec (e.g. ProRes, H.264, etc.) and bitrate.

DVD/Blu-ray subtitles can be exported for a number of different professional disc authoring software, such as DVD Studio Pro, Adobe Encore, Scenarist, Blu-print, etc. The right format to choose depends on what software will be used to author the disc.

Live Captioning (Broadcast)

- [Live realtime broadcast closed captioning](#)
- [Closed caption hardware encoders](#)
- [Steno machine vs. Speech recognition.](#)

To closed caption a live video broadcast, you can use either CaptionMaker-Live or MacCaption-Live software. For more details, read about [Live broadcast](#).

YouCaption

YouCaption (See the chapter on YouCaption) is the most effective way to input the text using speech recognition software Naturally Speaking.

Text Input for Live Events

For both live video captioning and text streaming, you need a way to input the text in real time. It is not possible to type text on the computer keyboard as fast as people speak. There are two common practices - Steno typing and using speech recognition software. For more details, click on [Steno machine vs. Speech recognition](#).

CC Encoder Hardware

You also need closed caption encoder hardware. They range in price from \$1,200 to \$10,000 depending on whether the video is analog, SDI or HD. CPC does not manufacture any closed caption encoder hardware, but can resell one to make a complete package for you. For choices of closed caption encoder hardware, steno machines, steno software etc., click on [Hardware Choices](#).

How it works

The talent or shadow speaker (the person that repeats all that is said into a microphone) first trains the [Naturally Speaking](#) speech recognition software to recognize their speech. This takes a few hours, and only needs to be done once.

In the studio, either the talent wears a microphone, or if there is rapid dialogue between the talent, the shadow speaker repeats everything said into a microphone. In any case, the microphone is attached to the computer running Naturally Speaking speech recognition software,

which converts their speech into text. The text is then automatically fed into CaptionMaker-Live and MacCaption-Live software which transform the text into caption format.

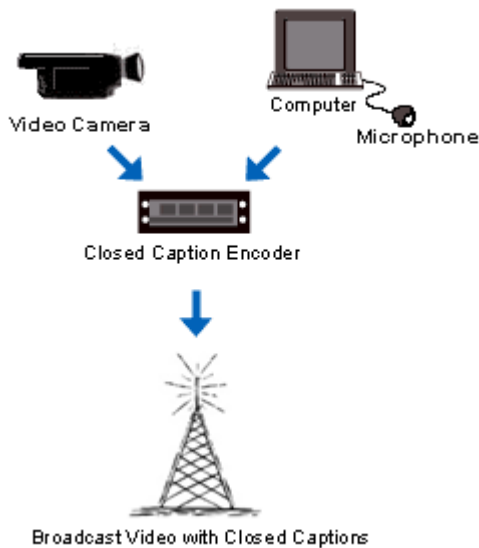
- Many uses**
- Sports and Weather
 - Emergency Announcement
 - Classroom Lectures
 - Meetings

This caption formatted text is then sent to the closed caption encoder via a standard serial cable.

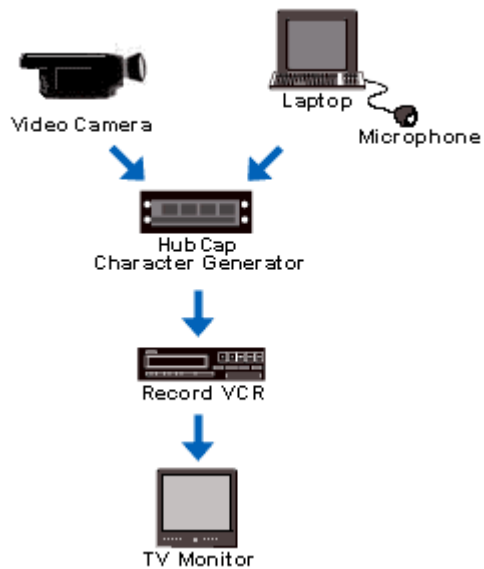
Simultaneously, the broadcast video is sent to the closed caption encoder. The encoder then physically places the captions onto the video in real time. The video out of the encoder (which contains the captioned video) is then broadcast out.

System Diagrams

Television Use



Classroom Use



Note: There are many setup options. For example, the video can be open captioned, displayed on a TV monitor on a student's desk and/or go to a record deck.

YouCaption (Speech-to-Text)

(not part of MacCaption/CaptionMaker)

Advanced Speech Recognition Technology

No stenographer or hardware encoder required

Real-time Closed Captioning Software for

- [PowerPoint®](#)
- [Classrooms](#)
- [Sporting Events](#)
- [Broadcast TV](#)
- [Online Meetings](#)
- [Religious Services](#)

[Watch demo video](#)

[YouCaption Brochure \(PDF\)](#)

[YouCaption Manual \(PDF\)](#)

Captions from Speech - Instantly!

YouCaption's advanced approach to speech recognition captioning provides accurate results with minimal lag or buffering time. Simply spend a few minutes training the software to your voice. Then speak naturally, and your speech instantly appears as captions. Multiple speakers can be trained, and you can switch between speaker profiles if you need to change speakers during a presentation.

Best Practices: Shadow Speaking

If there will be multiple speakers or speakers who don't have time to train their voice, you can use a technique called shadow speaking. A shadow speaker is a person who first trains the speech recognition software to recognize their speech. The shadow speaker then listens to the other speakers and repeats everything being said into the microphone. With practice, almost anyone can be a shadow speaker.

If you'd like to use a different microphone other than the one which comes with YouCaption, click [here](#) for a list of recommended wireless and wired microphones.

MacCaption Player

(not part of MacCaption/CaptionMaker)

[How it works](#)

[Sample QuickTime video](#)

[\(Instructions to play the video\)](#)

Delivers HD Closed Captions and Subtitles to Museum Kiosks

MacCaption Player displays HD captioned video superior in quality to Blu-ray®. Plus, it runs on reliable Mac computers, and eliminates the need for complicated and expensive authoring of disc media.

Video Quality Superior to Blu-ray®

MacCaption Player can output captioned and subtitled HD video superior to that of Blu-ray® because of its capability to accept video exported directly from a broadcast editing system, using the video format that is native to the editing system, such as Apple ProRes.

Runs on Reliable and Energy Efficient Mac Computers

MacCaption Player software runs on a Mac mini or any other newer model Mac computer. Mac computers such as the Mac mini have earned the EPA's Energy Star certification, which will lower users' energy bills.

No More Disc Media Authoring and Compression Fees

Blu-ray® and DVD® require video compression, which degrades video quality. MacCaption Player does not require video compression, resulting in higher video quality whether you are displaying HD or SD video to the public. Complicated and expensive authoring of disc media also is not needed.

Wall/tabletop Interface

MacCaption Player software comes with a display controller that allows the public to control the display of captions and subtitles. Connecting the controller is simple, and uses standard cables such as USB and HDMI. In most cases, no additional wiring is necessary. On the other hand, public display controllers for Blu-ray® players typically must be custom built.